

Amendments to the Specification

In the specification, Paragraph 005 is amended as follows:

U.S. Patent No. ~~5,384,182~~ 5,374,182 to Gessner discloses a hot runner manifold bushing that does not accommodate for the formation of dead spots behind the valve pin. Reference is also made to U.S. Patent No. 3,716,318; U.S. Patent No. 4,781,572; U.S. Patent No. 4,932,858; and U.S. Patent No. 5,811,140 that teach various valve bushing designs.

In the specification, Paragraph 009 is amended as follows:

According to yet another aspect of the present invention there is provided an injection molding apparatus comprising:

a manifold having a manifold channel for receiving a melt stream of moldable material under pressure and delivering said melt stream to a nozzle, said manifold channel undergoing a change of direction from an inlet to an outlet and being aligned with a nozzle channel of said nozzle;

a mold cavity for receiving said melt stream from said nozzle, said nozzle channel communicating with said mold cavity through a mold gate;

a valve pin extending through a bore provided in said manifold and through said nozzle channel, said valve pin being movable to selectively open and close said mold gate;

a guide projecting from an inner wall of said manifold channel, said guide being integrally formed with the inner wall of said manifold channel and diametrically

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opposing said inlet for facilitating flow of said melt stream, said guide being located behind said valve pin and abutting a portion of said valve pin.

In the specification, Paragraph 020 is amended as follows:

Figure 5 shows a valve pin 26 that is slidable through the manifold 10 along axis 30. Walls of the bore 28 provide a bushing for the valve pin 26. The bore 28 is sized to form a seal between the valve pin 26 and the manifold plug 40 so that moldable material does not escape through the bore 28.

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In the specification, Paragraph 021 is amended as follows:

The manifold 10 of Figure 5 includes the flow restriction element or guide 70. Similar to the guide 70 in Figure 4, the guide projects into the manifold melt channel 12. The guide 70 includes a curved guide surface 72, which abuts the valve pin 26. The guide surface 72 is surrounded by a guide edge 74, as shown in Figure 8. Referring now to Figures 6-10, the guide 70 is better illustrated. Guide 70 is integrally formed with an inner wall of the manifold melt channel 12. Although the guide 70 shown in Figures 6-10 is located on the manifold plug 40, it will be appreciated that the guide has the same structure as the guide 70 of Figure 5.
